

Quality can be measured.



## Perfection thanks to precision.

When the merchant Willy Martin and the precision mechanic Fritz Tschopp set up their company together in 1941, they were driven by the vision of manufacturing top quality precision mechanical products in the style of the world famous Swiss clockmakers.

The result of this vision is the company Martin + Tschopp AG, an internationally renowned full-range supplier of cylindrical gauges and ground shafts.

In a unique combination of modern and efficient production procedures coupled with the inherent Swiss quest for perfection, we develop and produce excellent cylindrical gauges and ground shafts "Made in Switzerland" for the world market. The challenge we face in the future is to continue perfecting this art in the spirit of our founders and to the benefit of our customers.





Our services and the added value we offer you are marked by the same level of perfection and precision with which we develop and manufacture our products.

Our customer managers are specialists who see their jobs as a vocation and who are happy to advise you comprehensively. We can deliver many of our gauges from stock. In addition to our extensive standard program, we can also supply measuring equipment tailor-made to meet

your needs. And if things need to be done quickly, you can take advantage of our express or super express production service. On request, we can also calibrate your high-precision cylindrical gauges in our modern measuring laboratory.



#### Nice to know for sure.

The application options for cylindrical gauges are diverse. Despite the growing importance of computer-controlled measuring systems, cylindrical gauges, single-ended and double-ended plug gauges, and thread measuring wires are still the most accurate, reliable and efficient measuring tools having proven their worth millions of times over in practice.

We are convinced that the result of your work can only be as good as the tools you use. As a result of this sense of responsibility, we make it a priority to ensure perfect quality and that all promised product properties and agreements are satisfied.

M+T cylindrical gauges are available in a diameter range of hair-fine 0.06 mm to approx. 20 mm with a diameter accuracy of up to ± 0.3 µm.

Moreover, we have developed numerous other products – evolving from the simple cylindrical gauges – that make your work much easier on a day-to-day basis. One excellent example of this is our thread measuring wires with micrometer holders.







#### The materials

In addition to the proven gauge steel, we have also been manufacturing our products in tungsten carbide and modern ceramic materials for some years.

These special materials are distinguished by their particularly high resistance to environmental influences and their durability.

Many of our gauges are also equipped with a **plastic handle**. Thanks to the use of the plastic, any heat transfer from the tester to the highly precise measuring device is significantly reduced.



# Cylindrical gauges made by master craftsmen.

M+T cylindrical gauges are suited for measuring small and minute borehole diameters, the angularity of boreholes, borehole clearances and the straightness of the boreholes. They also serve to measure grooves, denticulations, threads and V-notches. In addition, they can be used as precise setting standards for measuring equipment with displays and for calibrating devices.

The M+T cylindrical gauge is an extremely precise and reliable measuring device that is easy to handle and very sturdy.







Our cylindrical gauges are available (may depend on version):

- In a diameter range of o.o6 mm to 20 mm
- In the diameter accuracies  $\pm$  0.3 µm,  $\pm$  1.0 µm or  $\pm$  1.5 µm
- In gauge steel, tungsten carbide or ceramic
- With or without a labelled plastic handle
- Individually or in a set with a wooden case and base

The current technical details and specifications are contained in our respective valid price list.











## Plug gauges - the ultimate standard.

In comparison to the cylindrical gauges with handles, M+T single-ended plug gauges have a shorter measuring cylinder and are a cost-effective alternative to standard cylindrical gauges with or without a handle for many measuring and testing tasks where a long measuring cylinder is not required. They are suitable for determining diameters and clearances of small and minute boreholes. They also serve to measure grooves and other inside dimensions. In addition, they can be used as precise setting standards for measuring equipment with displays and for calibrating devices.

An M+T single-ended plug gauge is distinguished by its particularly cost-effective price-performance ratio whilst also providing the usual benefits of M+T products with regard to precision, reliability, user-friendliness and sturdiness.

Our single-ended plug gauges are available (may depend on version):

- In a diameter range of o.o6 mm to 10 mm
- In the diameter accuracies ± 0.5 μm or ± 1.0 μm
- In gauge steel, tungsten carbide or ceramic
- With a labelled plastic handle
- Individually or in a set with a wooden case and base











M+T double-ended plug gauges are used • With tolerances and wear allowances in for fast examination of diameters, in accordance with ISO particular for borehole fits. • In gauge steel, gauge steel/ tungsten carbide, tungsten carbide Our double-ended plug gauges are or ceramic available (may depend on version): • With a labelled plastic handle • In a diameter range of o.o6 mm The current technical details and specifito 10 mm cations are contained in our respective valid price list.

## Thread measuring wires - its all in the details.

The three-wire measuring process is one of the most precise procedures for determining the pitch diameter of threads.

The M+T thread measuring wires with micrometer holders combine this procedure with unique handling ease, measuring security of the highest order and absolute efficiency.

The corresponding measuring wires position themselves after they have been affixed, through the integrated washer springs, to the spindle of the measuring screw using the pair of holders.

For classic handling applications, we can also supply thread measuring wires with labelled eyelet handles in plastic.



Our thread measuring wires with labelled micrometer holders are available (may depend on version):

 In the diameters of the measuring wire series in accordance with Zeiss or all other diameters from 0.15 mm to 6.50 mm

- In the diameter accuracy ± 1.0 µm
- In gauge steel







# Always the right accessories.

To ensure that everything else is also 'just right', we also supply accessories specially designed to match our quality gauges and measuring equipment for secure and easy storage and handling, e.g.:

- Top quality wooden cases in various sizes
- Plastic bases to match the wooden cases, optionally with the diameter printed on them
- Plexiglas ampoules for the storage of individual cylindrical gauges
- Universal cylindrical gauge handles and holders



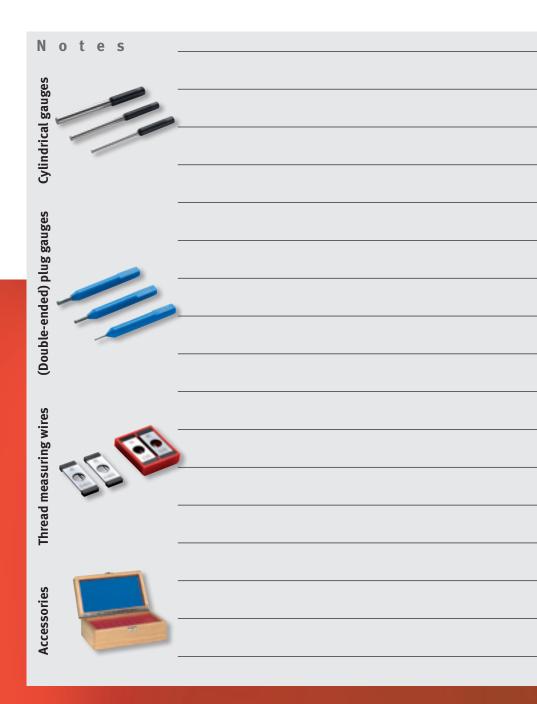


Thanks to our own measuring laboratory, we can also calibrate your cylindrical gauges and issue appropriate test records and certificates.

The current technical details and specifications relating to our accessory range and the calibration services are contained in our respective valid price list.



Opt for precise solutions from Martin+Tschopp. We are always available to answer questions and discuss special requirements – just ask.





If you cannot find a price list here, simply order it by fax or e-mail.



#### **Cylindrical gauges + Ground shafts**

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